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United States
Department of
Agriculture

Marketing and
Regulatory
Programs

Agricultural
Marketing
Service

Livestock and Seed
Division

Items of Interest in Seed Control

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Summer 1997

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Seed Regulatory and Testing Branch
Room 209, Building 306, BARC-East
Beltsville, Maryland 20705-2325
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ANNUAL MEETING OF ASSOCIATION OF OFFICIAL SEED ANALYSTS

Testing Section Supervisor Richard Payne of the Seed Regulatory and Testing Branch (SRTB) attended the annual meeting of the Association of Official Seed Analysts (AOSA) in Savannah, GA, June 14-19. Dr. Payne presented a paper entitled Herbicide Test Development as part of a symposium on the implications of herbicide tolerance/resistance for seed testing. He also gave a talk as part of the symposium entitled Every Analyst a Researcher. Fifteen AOSA rule-change proposals were considered and 13 were adopted. These proposals, along with the supporting evidence, were published in the February 1997 issue of the News Letter of the AOSA. As provided in the AOSA bylaws, these amendments become effective October 1. Seven of the adopted proposals are editorial in nature and involve combining various tables in the AOSA Rules for Testing Seed. These changes involve many pages and will require a great amount of editing. Therefore, it was decided that the changes will not be printed until the next time the entire AOSA Rules are reprinted.

The AOSA members approved a proposal to suspend publication of the AOSA newsletter and join with the Society of Commercial Seed Analysts to publish a joint newsletter. The first edition of this newsletter is scheduled for publication in January 1998. In addition, the members approved an increase in laboratory membership dues.

ASSOCIATION OF AMERICAN SEED CONTROL OFFICIALS MEETING

The Association of American Seed Control Officials (AASCO) met July 19-24 in Lexington, KY. Attendance at the meeting was up slightly from the past few years. Thirty State representatives, a representative from the Canadian Food Inspection Agency, and representatives from USDA organizations Animal and Plant Health Inspection Service (APHIS) and the SRTB attended the meeting. AASCO had invited retired employees from State departments of agriculture, who had been AASCO members, and several attended.

The opening session, Sunday, July 20, featured reports and greetings from allied organizations and affiliate meeting reports. Monday, July 21, the southern, northeast, north central, and western regional seed control associations each met separately. Several presentations at the Tuesday and Wednesday General Session dealt with intellectual property rights and genetic engineering. Other speakers covered such subjects as Seed Health Initiative, kernal bunt, a sampling study, Federal Seed Act (FSA) import provisions, the AASCO internet home page, and sampling bulk containers.

AASCO made no changes to the Recommended Uniform State Seed Law. The bylaws were changed to make the Official Definitions Committee a special committee. Two policy resolutions were passed. One resolution reminds all seed testing laboratories that it is misleading to represent as an "all states noxious test" any test that omits undesirable grass seed; and the other reminds seed firms that all seed, even seed donated for wildlife seedings, must be completely labeled following State seed laws. A topic that generated much discussion was the recent change in the Canadian Seeds Regulations requiring all certified seed to be graded based on a test from an accredited laboratory.

Branch Chief James Triplitt reported on FSA enforcement and other SRTB activities. Dr. Payne gave talks entitled Development of a Test for 'Roundup™ Ready' Soybeans and International Seed Testing Association.

Association of Seed Control Officials of the Northeastern States

Association of Seed Control Officials of the Northeastern States (ASCONES) met July 21 with President Joe Garvey (PA) presiding. Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and SRTB representatives were present. Following reports from members, the group discussed several topics including testing for undesirable grass seed, labeling donated seed, arbitration legislation, the status of ASCONES, the West Virginia inspector's meeting scheduled for October 1997, the effect of a likely Association of Official Seed Certifying Agencies (AOSCA) dues increase on ASCONES members, and accrediting laboratories for testing seed sold in Canada. ASCONES initiated and passed two resolutions that were subsequently discussed and passed by the AASCO membership. Details of the resolutions are given in the AASCO section on page 1. ASCONES is planning to meet October 15, in Saratoga Springs, NY, in association with the Atlantic Seedsmen's Association meeting.

North Central States Seed Control Officials Association

The North Central States Seed Control Officials Association (NCSSCOA) met July 21. President Bill Brener (WI) led the meeting. Representatives from Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Wisconsin, Canada, and SRTB were present. The group adopted the minutes of the last meeting, heard reports from the treasurer, committee chairs, member States, the Canadian Food Inspection Agency, and SRTB. NCSSCOA discussed several topics at length. Some subjects discussed were germination test dates, tolerances, testing transgenic seeds, investigating herbicide resistant soybean complaints, seed treatment colorants, the APHIS FSA Compliance Agreements, and the Canadian laboratory accreditation program. Gordon Rudloff (OH) was elected Vice President. Chuck Dale (MN) will continue as Secretary-Treasurer. John Harri (IA) becomes President.

Southern States Seed Control Officials Association

President Charles Leamons (TX) presided over the July 21 Southern States Seed Control Officials Association (SSCOA) meeting. Representatives from Alabama, Arkansas, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Texas, Virginia, and SRTB attended. The Secretary-Treasurer, standing committee chairs, special committee chairs, member states, and the SRTB reported. SSCOA members discussed several topics dealing with various aspects of intellectual property rights, genetically engineered varieties, and various variety enforcement issues. They also discussed several other topics including sorghum ergot, sampling superbags, civil penalties, quality assurance programs, and lawn repair kit labeling. David Buckingham (KY) was elected President, Lee Daughtry (MS) Vice President, Joe Cauthen (AL) Second Vice President, and Mary Smith (AR) Secretary-Treasurer.

Western Association of Seed Control Officials

President Steve Burningham (UT) called the July 21, Western Association of Seed Control Officials (WASCO) meeting to order. Representatives of Arizona, Colorado, Idaho, Montana, Oregon, Utah, Canada, and SRTB attended the meeting. Following reports by officers, committees, member states, SRTB, and Canada, WASCO discussed several topics including next year's meeting in Utah and the Canadian laboratory accreditation requirements. The organization updated the WASCO Constitution and Bylaws. Jim Cramer (OR) was elected President, Kathleen Willey (AZ) Vice President and Secretary, and Richard Lawson (ID) Treasurer. Following the meeting, WASCO members toured the facilities of the Kentucky Division of Regulatory Services.

ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES MEETING

The AOSCA met July 27-31, in New Orleans, LA. Perhaps the topic generating the most discussion was the vacant Executive Vice President (EVP) position. Dr. Vance Watson resigned to accept a position as head of the Mississippi Agricultural and Forestry Experiment Station. Greg Lowry of Idaho is the Interim EVP. The EVP position is currently one-fourth time. At the request of some member agencies, the AOSCA Executive Board decided to explore the possibility of a full time EVP. Ultimately, a committee assigned to look into the situation recommended that the position be half time. AOSCA agreed to the half time position and agreed to additional funding. Several agencies opposed the change because their membership fees would increase significantly. Another major topic was the recent change in the Canadian Seeds Regulations. After July 1, 1997, all certified seed sold in Canada must be graded based on a test from an accredited laboratory. The Canadian Food Inspection Agency indicated that an official sample could be taken on United States certified seed being shipped to Canada and the sample sent to an accredited Canadian laboratory where a test to assign the grade could be made. AOSCA had agreed to accredit United States laboratories to test certified seed being shipped to Canada. However, after a thorough airing of the subject, AOSCA felt that accrediting United States laboratories may not be needed at this time.

SEED TESTING WORKSHOP, GIDDINGS, TEXAS

Botanists David Bitzel and Susan Maxon of the SRTB's Testing Section conducted a special seed testing workshop for the 18 seed analysts (including laboratory supervisors) of the Texas Department of Agriculture's 3 seed testing laboratories. The Texas Department of Agriculture (TDA) Seed Laboratory in Giddings was host to a 3-day, in-house workshop, which was held August 5 to 7. The TDA supplied the training facilities and prepared germination samples for the participants. The workshop also included a tour of the trueness-to-variety field grow-outs that are being carried out by TDA for SRTB.

This workshop contributed to our ongoing effort to provide training for seed analysts as part of SRTB's function to promote uniformity in seed testing under the FSA. The States and USDA jointly participate in seed regulatory enforcement by virtue of a Federal/State Cooperative Agreement. The SRTB relies heavily on the States for sampling and testing of interstate shipments of agricultural and vegetable seeds. The performance of each cooperating laboratories' seed analysts is critical to the success of the program.

VARIETY VS. BRAND: A SUMMER REVIEW

An item discussing the issue of variety versus brand was printed in our January 1985 issue. The SRTB and State seed control officials are always concerned that the distinction between varieties and brand names or trademarks is being blurred. A brand or trademark is an indication of source and may have connotations of quality, purity, vigor, *etc.* On the other hand, a variety name identifies a specific genetic entity, a subdivision of a kind that is distinct, uniform, and stable (within the limitations of the crop and breeding procedure).

Unless protected under PVP laws, a variety name is public domain. Everyone must use the same variety name when labeling or advertising seed of that "genetic entity."

It is a constant regulatory battle to maintain the distinction between brand and variety names and we continue to see misuse of brand names in labeling and advertising of seed. Here are some rules to keep in mind:

1. A brand or trademark name must be clearly identified as being other than a part of the variety name, *e.g.*, Red Giant Brand Arthur 71 wheat, not Red Giant Arthur 71 wheat.
2. A brand name may not replace a variety name. Let us say "Super Nova" is a brand of sunflowers. A firm may not take 894 hybrid sunflowers and label them "Super Nova hybrid sunflowers." Super Nova brand 894 hybrid sunflower would be correct.
3. If a brand or trademark name is part of a variety name, that trademark loses status. Anyone marketing seed of that variety under its name must use the exact name including the brand or trademark. For example, if Ajax Seed Company has a brand name "Ajax" and names and markets a tomato variety it calls 'Ajax Deluxe' tomato, another firm marketing seed of the same variety must also label the seed as Ajax Deluxe tomato. Also, a brand or a trademark by itself cannot be a variety name.

RESERVE SEED COLLECTION NEEDS SEED SAMPLES

The SRTB maintains a Reserve Seed Collection (RSC) of seed samples used to aid in seed identification. We maintain samples in the RSC of more than 650 different species. On the following page, you will find 2 lists of species that are either low in the number of seeds we have on hand or completely depleted. If you can contribute seed samples to help replenish any of these, your assistance would be greatly appreciated. Also, if you have species that you would like to have added to the RSC, please send those too.

Please send your RSC samples to:

Leigh Wiltison-Allen
Reserve Seed Collection Coordinator
USDA, AMS, SRTB, Testing Section
Room 213, Building 306, BARC-East
Beltsville, Maryland 20705-2325

Telephone: 301-504-9189
Fax: 301-504-8098
E-mail: Leigh_A_Wiltison@usda.gov

RSC List of Samples Needed

Samples of the following species have only limited seeds remaining:

<u>RSC #</u>	<u>Kind name</u>
15	<i>Agrostis stolonifera</i> var. <i>palustris</i>
58	<i>Atriplex semibaccata</i>
62	<i>Avena sativa</i>
87	<i>Brassica napus</i> var. <i>pabularia</i>
96	<i>Brassica rapa</i> var. <i>Sarson</i>
102	<i>Bromus hordeaceus</i> (= <i>Bromus mollis</i>)
103	<i>Bromus inermis</i>
104	<i>Bromus japonicus</i>
106	<i>Bromus rigidus</i>
107	<i>Bromus rubens</i>
108	<i>Bromus secalinus</i>
110	<i>Bromus tectorum</i>
140	<i>Centaurea solstitialis</i>
161	<i>Cicuta maculata</i>
187	<i>Cucurbita moschata</i>
195	<i>Cynodon dactylon</i> var. <i>aridus</i>
196	<i>Cynodon dactylon</i> var. <i>dactylon</i>
200	<i>Cyperus esculentus</i>
227	<i>Echinochloa colona</i>
268	<i>Festuca pratensis</i>
271	<i>Festuca tenuifolia</i>
285	<i>Grindelia squarrosa</i>
309	<i>Hyptis suaveolens</i>
311	<i>Ilex cornuta</i>
330	<i>Lathyrus aphaca</i>
343	<i>Lespedeza juncea</i>
361	<i>Lotus purshianus</i>
548	<i>Solanum ptycanthum</i>
554	<i>Sorghum bicolor</i>
629	<i>Xanthium strumarium</i>
650	<i>Eclipta prostrata</i>
653	<i>Ginkgo biloba</i>
656	<i>Lathyrus hirsutus</i>
665	<i>Senecio jacobaea</i>
673	<i>Stenotaphrum secundatum</i>

Samples of the following species have been completely depleted:

<u>RSC #</u>	<u>Kind name</u>
7	<i>Aegilops cylindrica</i>
41	<i>Anthyllis vulneraria</i>
85	<i>Brassica napus</i> var. <i>biennis</i>
95	<i>Brassica rapa</i>
109	<i>Bromus stamineus</i>
125	<i>Cardiospermum halicacabum</i>
126	<i>Carduus flodmanni</i>
131	<i>Carex frankii</i>
137	<i>Cenchrus incertus</i>
142	<i>Cercis canadensis</i>
166	<i>Clidemia hirta</i>
182	<i>Cucumeropsis mannii</i>
186	<i>Cucurbita maxima</i>
214	<i>Digitalis purpurea</i>
223	<i>Distichlis spicata</i>
302	<i>Hordeum murinum</i>
316	<i>Ipomoea pandurata</i>
324	<i>Kummerowia striata</i> (= <i>Lespedeza striata</i>)
398	<i>Orobanche ramosa</i>
434	<i>Phaseolus coccineus</i>
537	<i>Simmondsia chinensis</i>
577	<i>Tragopogon pratensis</i>
628	<i>Xanthium spinosum</i>
640	<i>Artemisia tridentata</i>

RYEGRASS FLUORESCENCE LIST

This is the ryegrass fluorescence list issued by the National Grass Variety Review Board on August 18, 1997. They have added 7 named varieties (Academy, Brightstar II, Chaparral, Line Drive, Lynx, Pennant II, and Roadrunner) and 4 experimental designations (ISI-RUPR, ISI-R2, Pick PR 15-91, and Pick PR 84-91). Also, MB 43 (Majesty) is now the variety Majesty and Omega 3 is no longer experimental and is named Omega 3.

Perennial Ryegrass Variety Name	Percent Varietal Fluorescence	Perennial Ryegrass Variety Name	Percent Varietal Fluorescence	Perennial Ryegrass Variety Name	Percent Varietal Fluorescence
2CB	1.97%	Evening Shade	1.17%	Prelude	1.72%
89-90	2.15%	Excel	1.53%	Prelude II	2.25%
90-14 ¹	7.12%	Express	1.00%	Prizm	0.71%
246	0.27%	Fiesta II	1.14%	Quickstart	0.18%
856	0.87%	Gator	0.88%	Regency	0.99%
Academy	2.33%	Gettysburg	2.74%	Repell	0.33%
Accent	0.56%	Greenland	1.20%	Repell II	1.56%
Accolade	4.83%	Grimalda	2.00%	Reveille	2.00%
Accord	4.08%	Imagine	1.31%	Riviera	0.58%
Achiever	0.93%	ISI-RUPR (Gator II) ¹	2.50%	Riviera II	1.08%
Advent	0.14%	ISI-R2 (R2) ¹	1.25%	Roadrunner	2.53%
Affinity	0.77%	Koos 90-2 ¹	3.85%	Rodeo II	2.47%
Agresso	2.00%	LRF-94-B6 (Prelude III) ¹	0.59%	SR 4100	0.37%
All Star	0.47%	LRF-94-C8 ¹	0.64%	SR 4200	0.34%
Allaire II	1.15%	LRF-94-B7E ¹	0.65%	Seville	0.33%
APM	0.59%	LRF-94-MPRH (Palmer II) ¹	0.23%	Sherwood	1.08%
Aquarius	0.97%	LRF-94-C7 ¹	0.80%	Shining Star	0.10%
Assure	0.72%	Laredo ¹	0.53%	Stallion Select	2.37%
Bedford	1.40%	Legacy	0.37%	Stardance ¹	1.90%
Blackhawk	1.17%	Lindsay	1.72%	Statesman	1.27%
Blazer III	1.18%	Line Drive	2.72%	Statesman II	3.10%
Boardwalk	2.72%	Linn	5.00%	Target	3.28%
Breeze	1.57%	Lowgrow	1.31%	Tonga	11.53%
Brightstar	1.79%	Lynx	4.19%	Top Hat	0.77%
Brightstar II	2.24%	Magic	1.21%	Topeka	2.34%
Buccaneer	2.01%	Majesty	1.59%	Vantage	2.19%
C-21 ¹	6.28%	Manhattan II	0.65%	Wind Star	0.47%
Caliente	0.74%	Manhattan 3	0.88%	Wizard	2.57%
Calypso	1.29%	Morningstar	0.87%	Yorktown III	1.42%
Calypso II	0.47%	Mulligan	1.86%		
Catalina ¹	3.18%	Navajo	0.37%	Annual	Percent
Cathedral	0.85%	Newlinn	5.85%	Ryegrass	Varietal
Charisma	2.39%	NightHawk	1.39%	Variety Name	Fluorescence
Chaparral	1.62%	Nobility	3.26%		
Chattam ¹	2.11%	Nomad	1.03%	Florida 80	98.89%
Citation III	0.96%	Nova	1.00%	Grazer	99.78%
Commander	1.02%	Omega 3	0.73%	Gulf	99.02%
Cutter	1.65%	Omni	0.51%	Jackson	98.80%
Dancer	0.78%	Pageant	2.22%	Marshall	96.00%
Dandy	2.00%	Palmer	1.04%	Rio ¹	98.97%
Delaware Dwarf	0.61%	Palmer II	1.51%	Surrey	98.91%
Derby Supreme	2.85%	Passport	1.06%	TAM 90	98.45%
Dillon	4.14%	Patriot II	0.42%		
Divine	3.09%	Pegasus ¹	2.41%		
Edge	1.73%	Pennant	0.50%	¹ Experimental Designation and/or	
Elegance	1.51%	Pennant II	1.63%	Variety	
Elf	0.75%	Pick PR 84-91 (Headstart) ¹	2.09%		
Elite	4.84%	Pick PR 15-91 (Jiffie) ¹	6.06%		
Envy	0.22%	Pleasure	1.42%		
Equal	1.98%	PR8820	0.79%		

FEDERAL SEED ACT CASE SETTLED

The following case was settled administratively under the FSA on June 26. Under the administrative settlement procedure, the SRTB and the firm agreed to settle the case for the amount specified with the firm neither admitting nor denying the charges:

Roberts Seed Company, Inc., Tangent, OR, has paid \$2,550 for a case involving 4 shipments of seed. The alleged violations, while not the same for all shipments, were false labeling of purity, germination, test date, and the presence of a named variety. Seed regulatory officials in Maryland cooperated in the initial sampling and inspection.

Additions and Deletions of Plant Variety Protection Certificates

PLANT VARIETY PROTECTION CERTIFICATES
(**Issued** April 30, 1997, through August 11, 1997)

KIND VARIETY	APPLICANT	TITLE V (GEN.)	1994 PVPA	KIND VARIETY	APPLICANT	TITLE V (GEN.)	1994 PVPA
ALKALIGRASS, WEEPING Salty	Lofts Seed, Inc.		Y	SOYBEAN A4341	Asgrow Seed Company		Y
BEAN, FIELD				DP 3519S	Delta and Pine Land Company		Y
Alpine	Michigan State University	Y (2)					
Drake	Seminis Vegetable Seeds, Inc.			DP 3571S	Delta and Pine Land Company		Y
Norstar	NDSU Research Foundation	Y (3)	Y	FFR 553	FFR Cooperative		Y
CLOVER, RED				HT261 STS	Genecorp, Inc.	Y (*)	Y
Scarlett	Dairyland Seed Company, Inc.		Y	HT331 STS	Genecorp, Inc.	Y (*)	Y
				HT381 STS	Genecorp, Inc.		Y
CORN, FIELD	Limagrain Genetics Corp.			KS4694	Kansas Agricultural Experiment Station		Y
L222					Novartis Seeds, Inc.		Y
OAT	Arkansas County Seed Company, Inc.		Y	S20-91	Northrup King Company		Y
811				S75-55			Y
ORCHARDGRASS	Pure-Seed Testing, Inc.						
Elsie							
PEA	Seminis Vegetable Seeds, Inc.		Y				
Kalamo							
SP110-1-2-7-2	Rogers Seed Company		Y				
SP704-3-8	Rogers Seed Company		Y				
PEANUT							
AT 108	AgraTech Seeds Inc.	Y (3)	Y				
AT 120	Agratech Seeds Inc.	Y (3)	Y				
NC 12C	North Carolina Agricultural Research Service	Y (3)	Y				
PUMPKIN							
Tom Fox	Johnny's Selected Seeds		Y				
SAFFLOWER							
Erlin	Research and Development Institute, Inc.	Y (*)	Y				
SOYBEAN							
9242	Pioneer Hi-Bred International, Inc.		Y				
9321	Pioneer Hi-Bred International, Inc.		Y				
A1923	Asgrow Seed Company		Y				
A3304	Asgrow Seed Company		Y				

(*) No limit to the number of generations of certified seed beyond breeders seed.

PLANT VARIETY PROTECTION CERTIFICATES

(Expired April 30, 1997, through August 11, 1997)

KIND VARIETY	APPLICANT	TITLE V (GEN.)	1994 PVPA	KIND VARIETY	APPLICANT	TITLE V (GEN.)	1994 PVPA
BEAN, FIELD Tuscola	Michigan State University	Y (2)		Top Net	Harris Moran Seed Company		
BEAN, GARDEN BBL 109	Gallatin Valley Seed Company			OAT Brooks	North Carolina Agricultural Research Service	Y (3)	
Galagold	Gallatin Valley Seed Company			ONION Blanco Duro	Sunseeds Company		
Roma II	Rogers Brothers Seed Company			Brooks PRR	Sunseeds Company		
Smilo	Royal Sluis B.V.			Red Sunset	Sunseeds Company		
BEAN, LIMA	Ben Fish and Son	Y (1)		PEA Proto IV	Wilbur-Ellis Company		
Sprigg	Royal Sluis B.V.			Regal 36	Crites-Moscow Growers, Inc.		
CAULIFLOWER	Pfister Hybrid Corn Company			PRIMROSE, EVENING Constable	Scotia Pharmaceuticals Ltd.		
Dok Elgon	Rothermel Seed Company			RYEGRASS, PERENNIAL Yorktown II	Lofts Seed, Inc.	Y (2)	
CORN, FIELD	Russell and Louise James			SOYBEAN 1677	Pioneer Hi-Bred International, Inc.		
LP1 CMS HT	Dunn Seed Farms, Inc.			1981	Pioneer Hi-Bred International, Inc.		
Seagull Seventeen	The Lubrizol Corporation	Y (3)		3081	Pioneer Hi-Bred International, Inc.		
CORN, POPCORN	National Seed Development Organization Ltd.	Y (1)		4280	Pioneer Hi-Bred International, Inc.		
Pop-N-Eat	FFR Cooperative			4880	Pioneer Hi-Bred International, Inc.		
COTTON	Paragon Seed, Inc.			AP 200	Agripro Seeds, Inc.		
Dunn 219	Koninklijke			AP 225C	Agripro Seeds, Inc.		
GSA 78	Zaaizaadbedrijven			Bedford	Mississippi Agricultural and Forestry Experiment Station	Y (3)	
FESCUE, RED	Gebroeders Sluis, B.V.						
Merlin	W. Atlee Burpee Company			Beeson 80	Purdue University	Y (3)	
FESCUE, TALL	John Bodger and Sons Company				Agricultural Experiment Station		
Forager	Goldsmith Seeds, Inc.			BSR 301	Iowa Agriculture and Home Economics Experiment Station	Y (3)	
LETTUCE	Denholm Seeds						
Valley Queen							
Viva II							
MARIGOLD							
Happy Red							
Ice Crush							
Janie							
Spry Boy							
MUSKMELON							

(*) No limit to the number of generations of certified seed beyond breeders seed.

PLANT VARIETY PROTECTION CERTIFICATES
(Expired April 30, 1997, through August 11, 1997)

TITLE V 1994
(GEN.) PVPA

APPLICANT

TITLE V 1994 KIND
(GEN.) PVPA VARIETY

KIND
VARIETY

SOYBEAN

Century

Y (3)

Purdue University
Agricultural Experiment
Station and SEA, USDA
Iowa Agriculture and Home
Economics Experiment
Station

Cumberland

Y (3)

Iowa Agriculture and Home
Economics Experiment
Station

Deltapine 345

Y (3)

Delta and Pine Land
Company

Duke

V. R. Seeds, Inc.

Magnum

V. R. Seeds, Inc.

McNair 710

Y (3)

Northrup King Company

McNair 770

Y (3)

Northrup King Company

Pella

Y (3)

Iowa Agriculture and Home
Economics Experiment
Station

PL 70-10546D

Soybean Research

PL 72-3176L

Foundation, Inc.

Soybean Research

RA-402
Riverside 2025
Sloan

Foundation, Inc.
Northrup King Company
The Lubrizol Corporation

Y (3)

Iowa Agriculture and Home
Economics Experiment
Station

Stevens

Scientific Seed Company,
Inc.

TC 137

Agripro Seeds, Inc.

Weber

Y (3)

Iowa Agriculture and Home
Economics Experiment
Station

WHEAT, COMMON

Bennett

Y (3)

University of Nebraska
and SEA, USDA

Centurk 78

Y (3)

University of Nebraska
and SEA, USDA

Dancer

Y (3)

Agripro Seeds, Inc.

World Seeds 13

Y (3)

World Seeds, Inc.

(*) No limit to the number of generations of certified seed beyond breeders seed.

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